



MSD

July 16, 1996

Ms. Liza I. Montalvo
Remedial Project Manager
Kentucky/Tennessee Section
U. S. EPA
Region IV
345 Courtland Street, N. E.
Atlanta, GA 30365

Re: Results of Air Quality Monitoring - FY96 Third Quarter (FY96-3Q), (Event No. 15) Lees' Lane Superfund Site, Jefferson County, Kentucky Administrative Order on Consent, U. S. EPA Docket No. 91-32-C

Dear Ms. Montalvo:

In accordance with paragraph 11, under, Reporting Requirement, of the subject Consent Order and Attachment I, Operation and Maintenance Plan for Post-Removal Site Control at the Lees' Lane Landfill Site, Section 4.2, Air Quality Monitoring, attached for your information and files is one photocopy each of the following items, prepared by Radian Corporation, P. O. Box 13000, Research Triangle Park, North Carolina 27709, as received by MSD on July 12, 1996.

1. Radian Corporation letter, dated July 8, 1996, 2 pages.
2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1 page.
3. Table 1, TO-14 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: 03/06/96, 1 page.
4. Table 2, On-Site Meteorological Data, 03/06/96, 1 page.
5. Table 3, TO-14 Data Summary for Gas Monitoring Well Samples at Lee's Lane Landfill, Louisville, KY, Sampling Date: 03/06/96, 1 page.

DOCUMENT CONTROL NUMBER

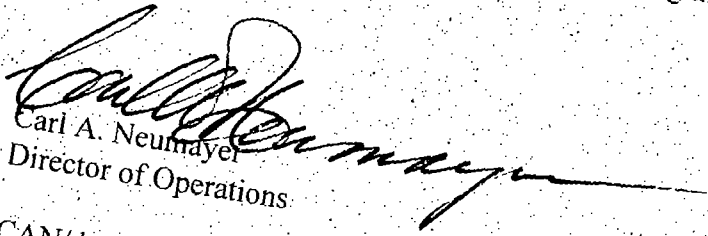
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Please advise if you have any questions concerning these sampling arrangements.

Sincerely,


Carl A. Neumayer
Director of Operations

CAN/dc
CAN3-3U

cc: Mr. Jeff Pratt, KNREPC,
Division of Waste Management
Mr. Rick Hogan, KNREPC
Division of Waste Management
G. R. Garner, Executive Director
File: WD-2 (Lees' Lane M & M Quarterly)

July 8, 1996

Mr. Dan Sammons
Chief Chemist
Louisville Metropolitan Sewer District
4522 Algonquin Parkway
Louisville, Kentucky 40211

Dear Dan:

Enclosed is the summary analytical report for the ambient and gas monitoring well samples collected at the Lee's Lane Landfill site on March 6, 1996.

A map of the site, labelled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary for the ambient sample with the primary analytes required for submission to EPA. All primary analytes are at typical ambient levels.

The monitoring sites for this quarterly collection were chosen based on a combination of prevailing on-site meteorology and available sites in the adjacent residential neighborhood per the standard sampling protocol. It was cool and damp for most of the monitoring day with a slight northerly breeze. Hourly readings of meteorological data including wind speed and direction were recorded at the Standiford Field Airport National Weather Service Station. The meteorological data is summarized in Table 2. The ambient samples were collected 3-5 feet above ground level. The ambient samples collected were integrated over a 7-8 hour collection period in Summa® canisters.

The methane analysis was performed by GC/FID on a separate analytical system prior to the TO-14 analysis at Radian's Perimeter Park Laboratory. The TO-14 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using Method TO-12 for total nonmethane hydrocarbons prior to field deployment. All ambient and gas well samples were successfully analyzed for methane and the TO-14 target analytes. No analytical difficulties were experienced with the gas well samples.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. Each set of gas monitoring wells was screened with field monitors (OVA-128 and H-NU). The values for methane were recorded by the OVA-128. The OVA values were used to select the wellhead (R or L) for collection of the canister sample.

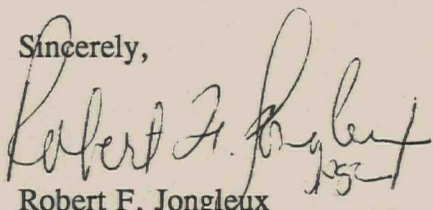
Mr. Dan Sammons
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The laboratory determined methane results are consistent for all the ambient air and the gas monitoring wells samples except for well number 1. This sample had a methane level of 51.84 ppmv. This high measurement value is suspected to have been due to a large rise in the prevailing water table (there was a flash flood warning for the previous 24 hours). The average ambient level of methane measured in the canisters was 3.80 ppmv, while the methane level measured in the gas wells ranged from 1.89 to 2.77 ppmv. All field measurements from the OVA and Hnu were below the detection limit of each instrument except for well number 1. This measurement was 16 ppmv on the OVA for the initial reading and below the detection limit for the final reading. The laboratory determined methane values are higher than the field values due to the inherently greater analytical sensitivity.

With the exception of the primary target analytes, very few TO-14 compounds were detected in either the ambient or gas well samples. Benzene, toluene, and xylene were detected in all 12 field samples. All ambient and well samples were at normal levels. The field blank was received in the field with no vacuum.

Radian appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,



Robert F. Jongleux
Senior Scientist/Project Manager

LMSD/Task 15

Attachments

cc: G.A. Holliden, Radian/LOU
Mike McCoy, Radian/RTP

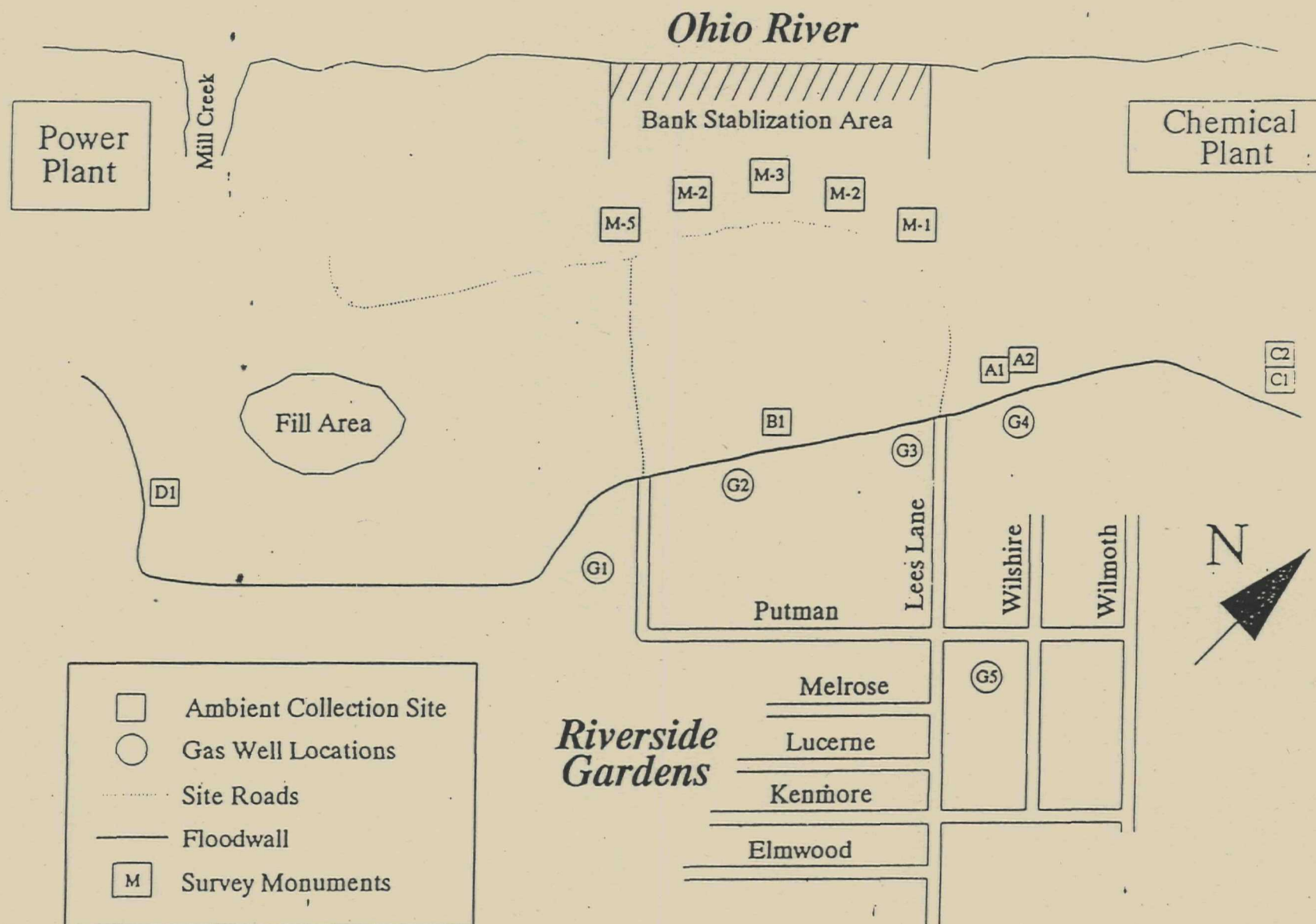


Figure 1. Lees Lane Landfill Sampling Locations

Not to scale.

TABLE 1

**TO-14 DATA SUMMARY FOR AMBIENT AIR SAMPLES AT THE LEES'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 03/06/96

Sample ID	AS-U1	AS-A1	AS-A2	AS-R1	AS-R2	AS-R3
Canister ID	A127724	A127732	A141754	A141762	A141767	A141752
Location	On-Site	On-Site	On-Site	Residential	Residential	Residential
Dilution Factor	0.903	0.875	0.869	0.881	0.889	0.882
Compound (conc. in ppbv)						
Benzene	0.09	0.08	0.09	0.29	0.19	0.24
Toluene	0.30	.016	0.23	0.66	0.45	0.66
Xylene (total)	0.15	0.07	0.08	0.44	0.45	0.56
Methylene Chloride	<0.01	<0.01	<0.01	0.30	<0.01	<0.01
Vinyl Chloride	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methane (ppm)	2.95	5.20	5.21	3.06	3.33	3.05

Note: less than values indicate compound was at or below the analytical detection limit.

TABLE 2
ON-SITE METEOROLOGICAL DATA
March 6, 1996

Time	Barometric Pressure (in Hg)	Temperature at (°F)	Dewpoint* (°F)	Wind Direction From	Wind Speed (mph)	Observations
8:00	29.53	54	52	NA	0	Light Rain
9:00	29.59	52	50	280°	2	Light Rain
10:00	29.60	47	45	360°	2	Overcast
11:00	29.53	45	44	360°	2	Overcast
12:00	29.53	45	44	340°	2	Overcast
13:00	29.52	45	43	NA	0	Overcast
14:00	29.53	44	42	10°	7	Overcast
15:00	29.53	43	41	340°	5	Overcast
16:00	29.54	41	40	340°	3	Overcast
17:00	29.55	40	39	330°	1	Drizzle

*Data from the National Weather Service, Louisville, KY

** Compiled by LMSD personnel at Lee's Lane Landfill Site **

TABLE 3

**TO-14 DATA SUMMARY FOR GAS MONITORING
WELL SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 03/06/96

Sample ID ^a	AS-G1R	AS-G2R	AS-G3R	AS-G4R	AS-G5RV	AS-G5R	FBL ^b
Canister ID	A127721	A167611	A127733	A127729	A127734	A141750	A127727
Dilution Factor	0.882	0.834	0.870	0.860	0.870	0.901	--
Orifice	B1	8	D-104	D-9	33	D-3	--
Compound (conc. in ppbv)							
Benzene	0.06	0.05	0.07	<0.01	0.03	0.36	--
Toluene	0.20	0.19	0.34	0.23	0.41	1.45	--
Xylene (total)	0.06	<0.01	0.08	0.08	<0.01	1.40	--
Methylene Chloride	<0.01	<0.01	<0.01	<0.01	0.301	<0.01	--
Vinyl Chloride	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Methane (ppm)	51.84	2.62	1.94	1.92	1.89	2.77	--

^aWells have been painted, covering shallow and deep designations, therefore, right (R) and left (L) designations used for identification.

^bCanister recieved in field with no vacuum/

Note: Less than values indicate compound was at or below the detection limit